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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,925	08/03/2006	Clayton Price	13877/10301	1654
26646 7590 02/12/2009 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004				
EXAMINER				
SANDERS, KRIELLION ANTIONETTE				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
02/12/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/585,925

Applicant(s)

PRICE, CLAYTON

Examiner

Kriellion A. Sanders

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/12/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Codolar et al, US Patent No. 6,248,806 in view of Perichaud et al, US Patent No. 6,251,967 and Hashimoto et al., US Patent No. 5,520,910.

Codolar et al discloses self-polishing marine antifouling paint compositions comprising rosin or rosin equivalent(s), one or more polymeric flexibilizer component(s) and optional fibers. The rosin part of the paint may comprise ammonium or metal salts of rosin. The non-crystalline flexibilizer components are selected from poly(meth)acrylates, polyacrylamides, copolymer and terpolymers thereof, acrylamide resins, acrylic acrylamide resins, polyvinyl ethers, polyvinyl esters, polyester, polyoxyalkylenes, polyurethanes, and epoxy esters. The fibers are preferably natural or synthetic inorganic or organic fibers or metal fibers. The paints are said to have improved mechanical properties such as strength and resistance towards weathering. The paints may also comprise a biological agent that affords antifouling properties. See col. 19, line 21 through col. 20, line 39 especially lines 34 and 21 wherein amines and phosphonium salts are disclosed. Patentee does not disclose that the polymer flexibilizers may comprise salt groups of amine or phosphine functional groups. See the abstract and cols. 15-17.

Perichaud et al discloses antimicrobial non-cross-linked polymers which are constituted of an ester and/or amide resin to which quaternary ammonium salts are bound by a covalent bond which is potentially reactive with water. The polymers correspond directly to those of the present claims. The polymers are said to possess antimicrobial activity. See col. 4, lines 13-15. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the polymers of Perichaud et al into the antifouling compositions of Codolar et al to obtain their antifouling properties. This is especially true in view of the fact that the Perichaud et al polymers possess amine, amide or quaternary ammonium functional groups as suggested by Codolar.

Hashimoto et al discloses an antimicrobial polymer obtained by homo- or copolymerizing a phosphonium salt type vinyl monomer, such as 2-(methacrylic acid) ethyltri-n-octylphosphonium chloride, that correspond to those of applicant's claims. See the abstract and col. 3, line 5 through col. 6, line 14.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the polymers of Hashimoto et al into the antifouling compositions of Codolar et al to obtain their antifouling properties. This is especially true in view of the fact that the Hashimoto et al polymers possess amine, amide or quaternary phosphonium functional groups as suggested by Codolar.

Codolar teaches that auxiliary agents may include plasticizers and those additives are included in an amount up to 15 percent by solids volume. See cols. 21 and 22. The ordinary practitioner of this art would know to select the antifouling agents and plasticizers and employ them in amounts within those suggested by patentee.

Response to Arguments

3. Applicant's arguments filed 11/12/08 have been fully considered but they are not persuasive.
4. Applicant states:

In response applicant submits that the polymer present in the coating composition of the presently invention comprises the salt of an amine or phosphine-functional group. The polymer in the claimed invention thus comprises a salt of a primary, secondary, and/or tertiary amine. In this regard, applicant directs the Examiner's attention to the disclosure on page 5, lines 7-9, of the specification. This salt has the formula $[-N(R_3R_4)]^+$ or $[-P(R_3R_4)]^+$ as shown in claim 1 as originally filed. Thus, the amine or phosphine groups present on the polymer in the presently claimed invention have an N-H or P-H functionality. Such functionality is not present in a quaternary ammonium or phosphonium group. In contrast, applicant submits that Codolar et al disclose antifouling paints that contain as biologically active agent an ammonium or phosphonium salt, i.e. quaternary ammonium or phosphonium salts. Similarly, Perichaud et al and Hashimoto et al disclose polymers comprising quaternary ammonium or phosphonium groups..... Thus, applicant submits that none of the cited prior art documents discloses polymers comprising salts of amine- or phosphine-functional groups as in the claimed invention. Accordingly, the skilled artisan, upon reading the cited

references, would not arrive at the claimed invention when considering the teachings in the cited references either alone or in combination....

This argument has not been found to be persuasive because applicant's claims comprise: a salt group-comprising polymer obtainable by a process comprising the steps of reacting an acid having an aliphatic, aromatic, or alkaryl hydrocarbon group comprising 5 or more carbon atoms with an amine- or phosphine- monomer of the formula depicted in claim 13. Applicant is advised that the present claims are also directed to a salt group-comprising polymer obtainable by any other process. The term, "obtainable by" is not limiting and therefore does not exclude the polymers of Codolar et al, Perichaud et al, and Hashimoto et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kriellion A. Sanders/

Primary Examiner, Art Unit 1796

Kriellion A. Sanders
Primary Examiner
Art Unit 1796